

A Method For Producing High Signal To Noise Spectral Measurements In Optical Detector Arrays

ABSTRACT

The present invention relates to a method and apparatus for producing high signal to noise spectral measurements in optical detector arrays and in particular to uncooled linear CCD arrays. This is accomplished by providing a detector and a database of dark signal readings unique to that detector that is generally created at the time of manufacture and that can then be used to provide a value for the dark signal inherent to that detector that can be used to correct the measured signal. The detector also includes a means to measure its temperature so that the appropriate dark signal value can be subtracted from the measured signal. This is because the dark signal is a function of both the temperature and the exposure time.